## LIBERTY CONSULTANTS FIND EDISON UNDERFUNDED MAINTENANCE AND REPAIR OF TRANSMISSION/DISTRIBUTION SYSTEM

Engineers for The Liberty Consulting Group told the Illinois Commerce Commission today that while Commonwealth Edison Company in general had good standards, procedures and people to carry them out, its electrical system failed in summer 1999 because the company had not spent nearly enough money on maintenance and necessary system improvements in prior years.

The Liberty Consulting Group Inc., was hired by the ICC to examine the Commonwealth Edison transmission and distribution systems, as well as the company's standards, policies, procedures and practices as they existed at the time of, and prior to Edison's 1999 power outages.

Liberty's investigation is not directed at summer 1999 outages or at Commonwealth Edison's ongoing system rehabilitation efforts, but rather at the condition of Commonwealth Edison's system and the utility's actions or inaction that set the stage for the decline in its service reliability in recent years.

ICC Chairman Richard Mathias said when the evaluation began the Commission did not know what actions Commonwealth Edison would take to fix its system or the priority of such actions. "We wanted an evaluation of what went wrong as well as a benchmark against which we could measure progress," he said.

Late last year, the Commission released a report from Vantage Consulting that detailed the circumstances of Commonwealth Edison's summer 1999 outages in Chicago and surrounding communities, and that the report is available on the Commission's web site, http://www.icc.state.il.us. In a related but separate effort, the Commission staff is monitoring the utility's progress toward rehabilitating its system as detailed in Edison's September 15, 1999 report.

Robert Stright, Liberty's Engagement Director, said that prior to summer 1999 power outages in the Chicago area, Commonwealth Edison Company's practice was to wait for its distribution system to fail before taking any action to repair or improve it. The consultants found that Edison cut back spending on capital improvements and regular maintenance for its transmission and distribution systems from 1992 to 1998. So strong was the utility's desire to limit spending, the consultants found, that between 1992 and 1998, Edison spent \$225 million less than its cumulative budgeted capital spending for the period, even though customer load continued to grow.

In addition, the consultants found that while Edison's own substation maintenance work fell further behind schedule in 1998 and early 1999, the utility sold electrical construction and maintenance services to third parties, using its own maintenance staff. In the meantime, the utility's backlog of maintenance projects and repair work mushroomed.

In its report to the Commission Liberty said that Commonwealth Edison indicated in 1998 that it had budgeted an additional \$307 million for service reliability improvements during 1999-2001, but that less than \$200 million was actually aimed at improving system reliability. The consultants concluded that the remaining money was budgeted for connections to the utility's fossil fuel plants and on new connections to independent power producers' generating plants.

Liberty said that prior to summer 1999, Commonwealth Edison used a 15-year average weather adjustment (a temperature of 93 degrees) for peak-load data in its load forecasts. The result was that Commonwealth Edison's annual peak loads had a 50 percent chance of exceeding the utility's forecast. In 1995, as a result of a previous Commission investigation, Failure Analysis Associates recommended to Commonwealth Edison that it change its weather adjustment method by adjusting to 99 degrees instead of 93 degrees. The utility disagreed and made this change only after the summer of 1999. Liberty pointed out that, with the adjustment to 99 degrees, Commonwealth Edison can expect its actual peak load to exceed its forecast about once every 10 years.

The Liberty consultants made 59 recommendations, based on a greater number of findings. Among those recommendations were that Commonwealth Edison should:

- dedicate the necessary funding to maintain and improve reliability of its transmission and distribution system;
- prevent the physical condition of its distribution system from deteriorating to the point it was in the summer of 1999;
- reduce and prioritize the tremendous backlog of maintenance projects;
- justify the way it makes weather adjustments to historical peak electrical loads for its five year load forecasts;
- implement a program to install fuses on all laterals and taps in accordance with standards;
- expand the maintenance testing of cables to include all priority cables;
- de-rate transformers to allow a planning margin that will minimize overloading; and
- relieve overloading on substation transformers and cables on the basis of realistic temperature predictions.

The cost of the Liberty investigation is estimated at \$1.6 million, which is to be paid by the utility.

This report is the first of a series from Liberty on Commonwealth Edison's transmission and distribution system problems. Each report will be posted to the ICC website at http://www.icc.state.il.us. A final report is expected by December, 2000.

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